

CLAIMS

1. Device for supplying liquids in vending machines for drinks, comprising heating elements (3) heating up said liquids and an electric drive pumping group (4; 101), characterized in that said pumping group (4; 101) comprises an intake (4'; 102a, 102b), at least a first and second intake duct (8a-8b, 8c-8d, 8e-8f, 800a, 800b) and is equipped with at least an impeller (11a, ..., 11c, 110a, 110b), said first and second intake duct (8a-8b, 8c-8d, 8e-8f) being selectively activated according to the direction of rotation of said at least one impeller (11a, ..., 11c) of said pumping group (4, 101).

2. Device according to claim 1, characterized in that said pumping group (4) comprises at least a pump (4a, 4b, 4c) equipped with said at least one impeller (11a, 11b, 11c).

3. Device according to claim 2, characterized in that said at least one pump (4a, ..., 4c) is a centrifugal pump, in that said at least one impeller (11a, ..., 11c) is housed within a chamber (12, 103) defined by a shell and in that:

- said first intake duct (8a, 8c, 8e) is oriented with respect to the shell (12) in a non-perpendicular direction, so as to receive the intake flow when said

impeller (11a, 11b, 11c) has a first direction of rotation and

- said second intake duct (8b, 8d, 8f) is oriented with respect to the shell (12) in a non-perpendicular direction, so as to receive an intake flow (11a, 11b, 11c) when the impeller (11a, 11b, 11c) has an opposite direction of rotation with respect to said first direction of rotation.

4. Device according to claim 3, in which said shell (12, 103) is substantially box-shaped and said first (8a, 8c, 8e) and second (8b, 8d, 8f) duct are oriented in directions tangent to the shell (12).

5. Device for supplying food according to claim 2, characterized in that said at least one pump (4a, ..., 4c) comprises an electric motor (9) connected to said at least one impeller (11a, ..., 11c) through motion transmission means (10).

6. Device according to claim 1, in which said pumping group comprises two pumps (400a, 400b) driven by the same electric motor by means of motion transmission means (10), each pump comprising: an impeller (11a, 11b), an intake opening (102a, 102b) and at least an intake duct that can be activated only in a given direction of rotation of the impeller (110a, 110b), said two pumps (400a, 400b) having opposite

directions of rotation for the activation of the corresponding intake duct.

7. Device for supplying food according to claim 3 or 6, characterized in that the direction of rotation of said at least one impeller (11a, ..., 11c, 110a, 110b) of said at least one pump (4a, ..., 4c, 400a, 400b) is operatively driven by an electronic interface (5) in accordance with signals sent to said electronic interface (5) from a selection keyboard (6).

8. Device for supplying food according to claim 3 or 6, characterized in that said at least first and second intake duct (8a-8b, 8c-8d, 8e-8f, 800a, 800b) are each in fluid connection with at least a mixing device (7a, ..., 7f).

9. Device for supplying food according to claim 8, characterized in that said at least one mixing device (7a, ..., 7f) is also in fluid connection with an intake duct (13a, ..., 13f) supplying said at least one mixing device (7a, ..., 7f) with soluble products.

10. Device for supplying food according to claim 5 or 6, characterized in that said electric motor (9) is controlled by said electronic interface (5).

11. Device for supplying food according to claim 5 or 6, characterized in that said motion transmission means (10) comprise a drive shaft.